Cloning of the gene encoding the 5-ene-2-ynosene-1-carboxylate (ECC) dehydrogenase to G. coli and study of its expression.

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Abstract: The purpose of this study was to express the 5-ene-2-ynosene-1-carboxylate (ECC) dehydrogenase gene in G. coli. The gene for the ECC dehydrogenase was cloned into a pBluescript vector and expressed in G. coli. The enzyme was purified and assayed for its activity. The results showed that the enzyme had a specific activity of 12.5 U/mg. The enzyme was then used to transform G. coli and the transformants were assayed for their ability to grow on a medium containing the ECC dehydrogenase substrate. The results showed that the enzyme was indeed expressed in G. coli and that it was able to grow on the medium containing the ECC dehydrogenase substrate.